NUS CORPORATION
1927 LAKESIDE PARKWAY
SUITE 614
TUCKER, GEORGIA 30084
404-938-7710

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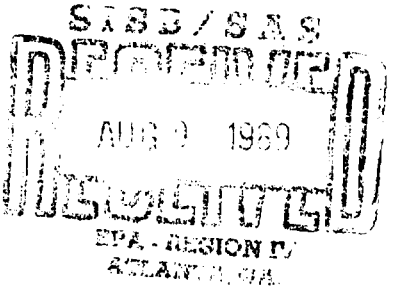
#77672

C-586-7-9-200

July 31, 1989

Mr. A. R. Hanke
Site Investigation and Support Branch
Waste Management Division
Environmental Protection Agency
345 Courtland Street, N. E.
Atlanta, Georgia 30365

Date: 8/31/89
Site Disposition: NFA
EPA Project Manager: RM



Subject: Preliminary LSI Evaluation
Dayton Walther Corporation
Carrollton, Carroll County, Kentucky
EPA ID No. KYD059564385 #2019
TDD No. F4-8902-31

Dear Mr. Hanke:

FIT 4 completed an evaluation of the Dayton Walther Corporation facility as a potential candidate for a Listing Site Inspection. The evaluation included a review of EPA and state file material along with the collection of additional target information from state and local agencies.

The Dayton Walther Corporation facility is located northeast of the city of Carrollton, Carroll County, Kentucky. The company is owned by Dayton Walther, and since 1972, has manufactured grey iron brake drums used by the tractor-trailer industry. The process of manufacturing these brake drums involves a two-part operation. The brakes are first cast in sand molds at the foundry and then moved to the machining center where the finished product is produced (Refs. 1, pp. ES-1, 3; 2, p. 10).

On June 27, 1980, Dayton Walther Corporation submitted an application for permission to dispose of baghouse dust from the foundry emission control system in a landfill located onsite. This dust contains barium, lead and cadmium as well as several other metals (Ref. 4, pp. 1, 2). The dust is reportedly mixed with foundry sand and sludge to reduce leachable metals to below EP toxicity limits. The state of Kentucky categorizes this as an inert solid waste landfill (Ref. 1, p. 3). Dayton Walther also reported an overflow from one of their two waste oil sumps on April 12, 1983. Waste oil from the machining center is stored in these sumps. When the oil reaches a certain level, a sump pump activates and the oil is moved to a railroad tanker. The spill occurred when one of the pumps malfunctioned. The amount of oil released is unknown, but it was contained within the property of Dayton Walther (Ref. 1, p. 6).

In May of 1985, Dayton Walther was referred to the Kentucky Uncontrolled Site Section following an inspection by the Division of Waste Management. During the inspection, it was determined that Dayton Walther had used 1,1,1-trichloroethane (TCA) as a degreaser in their plant operations up until 1982, and that one of the sumps, possibly containing TCA from floor washings, had once leaked. Dow Corning, an adjacent business, was finding traces of this chemical in their monitoring wells. Dow Corning did not use any TCA in their operations, so it was suspected that Dayton Walther

may have been the source of contamination. It is now believed that the TCA found in their monitoring wells was coming from an old landfill on the Dow Corning property that was active in the 1960s (Ref. 1, p. 6).

A Screening Site Inspection (SSI) of the Dayton Walther facility was conducted by NUS Corporation, FIT 4 on July 23-24, 1988. Three surface soil, three subsurface soil, and two sediment samples were collected during this investigation. The surface and subsurface soil samples collected at each of the waste oil sumps showed elevated levels of tetrachloroethene, toluene, copper, zinc and lead (Ref. 1, pp. 17-20).

The area immediately surrounding Dayton Walther is rural with approximately 4000 people living within 4 miles of the facility. This population is concentrated in the towns of Carrollton, Kentucky to the southwest, Ghent, Kentucky and Vevay, Indiana to the northeast (Ref. 3). The General Butler State Park is located near Carrollton approximately 4 miles away (Ref. 1, p. 8).

The facility is located in the Ohio River Valley which is a steep-sided, U-shaped trough, formed by the erosion of limestone bedrock by glacial melts during the Pleistocene age. The trough was then partially filled with two distinct layers of alluvium to a depth of approximately 180 feet. The Ohio River has since meandered and eroded the fill deposits down to a thickness of about 150 feet (Ref. 5, pp. 5-7). The uppermost layer of alluvial sediment is composed primarily of silt, clayey silt, and fine sand, but lenses of gravel and coarse sand are common. The lower layer of alluvium is a "fining-upwards" sequence of boulders, gravel, and coarse sand, which forms a persistent layer across the entire valley bottom (Ref. 5, p. 8).

The bedrock underlying the alluvium of the area is made up primarily of limestones and shales of Silurian, Devonian, and Mississippian ages (Ref. 5, p. 48). The primary source of groundwater in the area is the alluvial aquifer within the Ohio River Valley. This surficial aquifer is about 150 feet thick, and the groundwater flow direction is north toward the Ohio River. Depth to the water table is approximately 47 feet (Ref. 6). A reciprocating hydrologic connection exists between the alluvial aquifer and the Ohio River. Groundwater usually flows from the alluvial aquifer into the Ohio, but at times the Ohio may provide recharge to the alluvial aquifer. The alluvial aquifer is also recharged directly by infiltration of precipitation (Ref. 5, p. 18).

The Silurian Limestone aquifer underlies the alluvium. Due to the availability of groundwater in the alluvial aquifer, and the high mineral content of water in the limestone aquifer, it is not used as a potable water source in the study area. The Silurian Limestone aquifer is hydrologically connected to the alluvial aquifer and does provide some recharge to it (Ref. 5, pp. 36, 49-50).

In the Carrollton area, municipal water is supplied by Vevay Utilities, Carrollton Utilities, Carroll County District I and Carroll County District II. Carroll County District I and Vevay Utilities are the only municipal systems that have wells within a 4-mile radius of the site. District I has four wells in Ghent, Kentucky, located 2.7 miles to the northeast of the site. These wells are approximately 120 feet deep and service 1266 connections (Ref. 1, p. ES-1). The city of Vevay, Indiana has 4 wells located approximately 3.5 miles northeast of the site which serve about 750 connections (Ref. 6). Dow Corning, located adjacent to Dayton Walther, has several groundwater wells used for production purposes and a drinking water well that is used by approximately 260 persons. Distance to the

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drinking water well at Dow Corning is about 1500 feet to the west, and its depth is 135 feet. This well is monitored and city water is available should the quality become unacceptable (Ref. 1, p. 11).

McCool's Creek receives drainage from the site via an intermittent stream to the south. The creek then flows approximately one mile before entering the Ohio River (Ref. 3). There are no other water bodies encountered along the probable migration pathway. The Ohio River is used for recreational fishing and boating, as well as commercial fishing (Refs. 8, 9). It also provides habitats for at least 3 endangered species (Ref. 10).

Using the data discussed above, a preliminary Hazard Ranking System (HRS) score was developed based on the revised system. The pathways evaluated include air, groundwater, surface water, and onsite exposure. The overall preliminary score for the site is 11.02. Scoring factors that had the greatest influence on the evaluation include:

- relatively sparse population within 4 miles,
- distance weighting of groundwater population, and
- low hazardous waste quantity score.

Based on the above evaluation, FIT recommends that this site not be considered for a Listing Site Inspection.

For your convenience, a computer printout of the preliminary draft revised HRS score and a RCRA status report have been enclosed. If you have any questions, please contact me at NUS Corporation.

Very truly yours,

Ronald Wilde

Ron Wilde
Project Manager

Approved:

RW/kw

Enclosures

cc: Scott Gardner, EPA

REFERENCES

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1. "Final Screening Site Inspection Report, Dayton Walther Corporation, Carrollton, Carroll County, Kentucky," Revision 0, Prepared under TDD No. F4-8802-21, for the Waste Management Division of the USEPA (NUS Corporation, Superfund Division: January 17, 1989).

2. Potential Hazardous Waste Site, Site Inspection Report, EPA Form 2070-13, Dayton Walther Corporation, Carrollton, Carroll County, Kentucky. Prepared by NUS Corporation, November 7, 1988.

3. U.S. Geological Survey, 7.5 minute series Topographic Quadrangle Maps of Kentucky - Indiana: Carrollton 1967, Vevay South 1967, Vevay North 1971, and Bennington 1971, scale 1:24,000.

4. Fred Griggs, Facilities Planning, Dayton Walther, Permit Application with attached laboratory results. Sent to Kentucky Dept. for Natural Resources and Environmental Protection, Division of Hazardous Material and Waste Management, June 27, 1980.

5. John T. Gallaher and W. E. Price, Jr. "Hydrology of the Alluvial Deposits in the Ohio River Valley in Kentucky," Geological Survey Water-Supply Paper 1818 (1966), pp. 2-51.

6. Dwight McKinzie, Vevay Water Company, telephone conversation with Ron Wilde, NUS Corporation, May 25, 1989. Subject: Water Supply in Vevay, Indiana.

7. Sharon Toms, Kentucky Geological Survey, telephone conversation with Phillip Henderson, NUS Corporation, June 30, 1988. Subject: Water levels in Carrollton area.

8. Doug Henley, Kentucky Fish and Wildlife Game Farm, telephone conversation with Phillip Henderson, NUS Corporation, November 3, 1988. Subject: Fishing on the Ohio River.

9. Bonnie Smith, Carrollton Chamber of Commerce, telephone conversation with Ronald Wilde, NUS Corporation, February 21, 1989. Subject: Public access to Ohio River in Carrollton.

10. U.S. Fish and Wildlife Service, Endangered and Threatened Species of the Southeastern United States, (Atlanta, Georgia: 1988).

DAYTON WALTHER

MARK R. SLOTTA, CHCM
Corp. Manager of Safety & W/C

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2800 East River Road
Dayton, Ohio 45401
Telephone 513/296-3144

Robert, This was the person from Dayton Walther who requested a copy of our data. His consultants (Payne and Reimer Inc) took splits of our samples. It would be nice to have a copy of their results also.

Phillip Henderson